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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/905,703	04/19/2001	Brian R. Dershem	P7926/00-868	7105
7590 09/09/2005			EXAMINER	
Jason J. Stanley			ROSENBERG, LAURA B	
Caterpillar Inc., Intellectual Property Department AB6490			ART UNIT	PAPER NUMBER
100 N.E. Adams Street			3616	
Peoria, IL 61629-6490			DATE MAILED: 09/09/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

XU /						
7	Application No.	Applicant(s)				
	09/905,703	DERSHEM ET AL.				
Office Action Summary	Examiner	Art Unit				
·	Laura B. Rosenberg	3616				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period v - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be tir y within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONE	mely filed vs will be considered timely. Ithe mailing date of this communication. ED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 17 Ju	Responsive to communication(s) filed on <u>17 June 2005</u> .					
· -	, –					
• • • • • • • • • • • • • • • • • • • •	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
closed in accordance with the practice under E	ex раπе Quayle, 1935 С.D. 11, 4	53 O.G. 213.				
Disposition of Claims						
4) Claim(s) 15-31 and 33-41 is/are pending in the 4a) Of the above claim(s) is/are withdray 5) Claim(s) 41 is/are allowed. 6) Claim(s) 15-31 and 33-40 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/o	wn from consideration.					
Application Papers						
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) accomplicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Example 11.	epted or b) objected to by the drawing(s) be held in abeyance. Se ion is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachment(s)						
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)						
Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	Paper No(s)/Mail D 5) Notice of Informal F 6) Other:	ate Patent Application (PTO-152)				

U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04) Application/Control Number: 09/905,703

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DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 June 2005, in which claims 15, 17-19, 25, 28, and 30 have been amended and claims 37-41 have been added, has been entered.

Claim Objections

2. Claims 25, 37, and 41 are objected to because of the following informalities:

"a right and left track assembly" should either be changed to --a right and a left track assembly-- or --right and left track assemblies-- (claim 25);

"a first and second ground engaging member" should either be changed to --a first and a second ground engaging member-- or --first and second ground engaging members-- (claim 37);

"a first and second crossmember" should either be changed to --a first and a second crossmember-- or --first and second crossmembers-- (claim 41).

Appropriate correction is required.

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Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 15-20, 22-28, 30, 31, and 33-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Shoup (4,151,920).

In regards to claims 15-20 and 22-24, Shoup discloses a frame assembly (best seen in figure 1, 2) that can be used with a loader machine having a "modular" undercarriage including a crossmember (including #60) and first and second ground engaging members (for example, a pair of track assemblies), wherein the crossmember has a "top" surface (including right or left surface as seen in figure 2) and first and second ends (#62; best seen in figure 1) such that the first end is attached to the first ground engaging member and the second end is attached to the second ground engaging member (column 3, lines 28-35), the frame assembly comprising:

- Main frame assembly (including #10) having a base portion (including parts of #18)
 and front and rear sections (right side in figure 1 is front; left side in figure 1 is rear)
- Recessed channel (including #56) defined on the base portion of the main frame
 assembly and having a defined surface (including right or left surface of #56 as seen
 in figure 2) and extending across the width of the base potion (best seen in figure 1)
- The defined surface is seated upon the "top" surface of the crossmember (best seen in figure 2)

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 The crossmember is attached with the main frame assembly in an area adjacent the recessed channel (best seen in figure 1)

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- The recessed channel is positioned between the front and rear sections of the main frame assembly (best seen in figure 1)
- The main frame assembly includes an upper frame assembly (including #14, 16) and a lower frame assembly (including #18)
- The upper frame assembly having a pair of "space tower assemblies" ("tallest" portions of #16), a pair of side members (including #16) having front and rear portions (right side is front, left side is rear; best seen in figure 1) with each side member connected to a respective tower assembly (integral with them) and extending longitudinally therefrom, and a crossmember assembly (including #14) extending between the pair of tower assemblies and able to connect therewith
- The lower frame assembly having a pair of spaced vertically oriented side rails
 (including #18) and a front wall (for example, including #78) extending continuously
 between the side rails (best seen in figure 1) and able to connect therewith
- The upper frame assembly is mounted to the lower frame assembly at a connection between the side members of the upper frame assembly and the respective side rails of the lower frame assembly (for example, at weld joint #30)
- The undercarriage is a tracked undercarriage and the first and second ground engaging members are right and left track assemblies (column 3, lines 28-35)

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The recessed channel defines a strengthened region of the main frame assembly
and is able to provide torsional stiffness to the loader machine (based on its location
across the width of the frame and its connection to the side frame members)

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- The lower frame assembly further including the base portion and the recessed channel (best seen in figure 1)
- The cross-member assembly (including #14) disposed between the front and rear end portions of the upper frame assembly (best seen in figure 1; front end portion to the right, rear end portion to the left)
- The side members (including #16) of the upper frame assembly extending along the side rails (including #18) of the lower frame assembly a predetermined distance (for example, along #30) and terminating rearward of the front wall (best seen in figure 1).
 In regards to claims 25-28, Shoup discloses a loader machine comprising:
- Undercarriage having right and left track assemblies (column 3, lines 28-35)
 connected by a crossmember (including #60) with a "top" surface (including right or left surface as seen in figure 2)
- Main frame assembly including a lower frame assembly (including #18) having front
 and rear sections (right side is front, left side is rear; best seen in figure 1), an upper
 frame assembly (including #14, 16), and a recessed channel (including #56) defined
 on the lower frame assembly and having a defined surface (including right or left
 surface of #56 as seen in figure 2)

- The recessed channel extending across the width of the lower frame assembly (best seen in figure 1), wherein the defined surface is seated upon the "top" surface of the crossmember (best seen in figure 2)
- The crossmember being attached with the lower frame assembly in an area adjacent the recessed channel (best seen in figure 1)
- The recessed channel being positioned between the front and rear sections of the main frame assembly (best seen in figure 1)
- The upper frame assembly (including #14, 16) including a pair of "space tower assemblies" ('tallest" portions of #16), a pair of side members (including #16) having front (to the right) and rear (to the left) portions with each side member being connected to a respective one of the pair of tower assemblies (integral with them) and extending longitudinally therefrom, and a crossmember assembly (including #14) extending between the pair of tower assemblies and able to connect therewith
- The lower frame assembly (including #18) including a pair of spaced vertically oriented side rails (including #18) and a front wall (for example, including #78)
 extending continuously between the side rails and able to connect therewith
- The upper frame assembly being mounted to the lower frame assembly at a connection between the side members of the upper frame assembly and the respective side rails of the lower frame assembly (at weld joint #30).

In regards to claims 30, 31, and 33-36, Shoup discloses a frame assembly (best seen in figure 1) that can be used with loader machine having an undercarriage

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including at least one crossmember (including #60) with a "top" surface (including right or left surface as seen in figure 2), the frame assembly comprising:

- Main frame assembly (including #10) having a base portion (including parts of #18)
 and front and rear sections (right side in figure 1 is front; left side in figure 1 is rear)
- Opening (including channel #56) defined on the base portion and having a defined surface (including right or left surface of #56 as seen in figure 2)
- The opening extending across at least a portion of the width of the base portion (best seen in figure 1)
- The defined surface operably engagable with (via connections as seen in figure 2)
 the "top" surface of the crossmember in a manner that distributes a vertical load
 substantially evenly along the opening (based on the channel's location across the
 entire width of the frame)
- The opening is a recessed channel (including #56) extending across the entire width of the base portion (best seen in figure 1)
- The crossmember is attached with the main frame assembly in an area adjacent the opening (best seen in figure 1)
- The opening is positioned between the front and rear sections of the main frame assembly (best seen in figure 1)
- The opening is shaped for seating against the crossmember and is seated thereupon (best seen in figures 1, 2)
- The opening and the crossmember have a channel shape formed for mating relation with each other (best seen in figures 1, 2)

In regards to claims 37-40, Shoup discloses a method of making a loader machine comprising the steps of:

- Providing an undercarriage having first and second ground engaging members connected by the crossmember (column 3, lines 28-35)
- Mounting a frame assembly (including #10) having a base portion (including parts of #18), front and rear sections (right side in figure 1 is front; left side in figure 1 is rear),
 and a recessed channel (including #56) on the base portion
- The recessed channel has a defined surface (including right or left surface of #56 as seen in figure 2) extending across the width of the base portion (best seen in figure 1) and seated on the crossmember (best seen in figure 2)
- The crossmember has a "top" surface (including right or left surface as seen in figure
 2) and the defined surface of the recessed channel is seated upon the "top" surface
 (best seen in figure 2)
- The undercarriage is a tracked undercarriage and the first and second ground engaging members are track assemblies (column 3, lines 28-35)
- The frame assembly includes a lower frame assembly (including #18) and an upper frame assembly (including #14, 16)
- The lower frame assembly includes the recessed channel, a pair of spaced vertically oriented side rails (including #18), and a front wall (including #78) extending continuously between the side rails (best seen in figure 1)
- The upper frame assembly includes a pair of "space tower assemblies" ("tallest" portions of #16), a pair of side members (including #16) with each side member

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connected to a respective tower assembly (integral with them) and extending longitudinally therefrom, and a crossmember assembly (including #14) extending between the pair of tower assemblies and able to connect therewith

 The upper frame assembly is mounted to the lower frame assembly at a connection between the side members of the upper frame assembly and the respective side rails of the lower frame assembly (for example, at weld joint #30)

Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claims 21 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoup (4,151,920) in view of Macht (4,514,007). In regards to claims 21 and 29, Shoup does not disclose the material used for manufacturing the lower frame assembly. Macht teaches a frame assembly (best seen in figure 2) for a loader machine (#10) having an undercarriage including at least one cross-member (including #74, 76), the frame assembly comprising a main frame assembly (including #12) and at least one recessed channel (not labeled; best seen in figure 2) for seating upon the at least one cross-member. The frame assembly is formed of steel (column 4, lines 2-4). It would have been obvious to one skilled in the ad at the time that the invention was made to modify the lower frame assembly of Shoup such that it comprised a medium strength

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steel as claimed in view of the teachings of Macht so as to provide a strong, resilient, and inexpensive material for manufacturing the lower frame assembly. Further, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as matter of obvious design choice.

Allowable Subject Matter

7. Claim 41 is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B. Rosenberg whose telephone number is (571) 272-6674. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura B Rosenberg
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LBR

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